

# FREQUENTLY ASKED QUESTIONS ABOUT PAPERSTONE

### What is PaperStone?

PaperStone is a versatile, solid surface building material that is manufactured in an environmentally responsible manner in Washington State. Durable, water resistant and easy to work with, PaperStone's range of colors and price-point have made it a favorite choice for homes, restaurants, laboratories, office buildings, universities and premiere U.S. museums and attractions.

The vast majority of PaperStone products are created with 50- to 100-percent recycled papers and a proprietary non-petroleum resin, earning it certification by the Forest Stewardship Council. If used with drop down edge profiles, because two surface layers are attached, the color layer at the seam will be wider than the layers within the panel, making the seam more visible. In a few products, instead of recycled paper, FSC-certified virgin fibers are used. (Where its use is advantageous over phenolic resin, a few noted products are made with a melamine resin.)

Not only is PaperStone used for both household and commercial building projects including countertops, bathroom partitions, wall cladding, paneling and furniture, but creative manufacturers also rely on it to craft everything from utensil handles and cutting boards to signs, billiard balls and guitar fingerboards.

### Why choose PaperStone?

### PaperStone is:

**Durable** – Nearly as hard as rock, PaperStone is less brittle than stone or engineered quartz brands. It is a stain resistant, heat -resistant, non-porous surface. Its superior strength allows innovative cantilevered designs with up to 18 inches of overhang using the <sup>3</sup>/<sub>4</sub>-inch thick material.

Beautiful – Available in a variety of rich colors, PaperStone assumes a warm, lustrous patina as it ages.

**Unique** – Made with our proprietary non-petroleum based phenolic resin and recycled paper, no other composite product compares.

**Green and sustainable** – Nearly all of the PaperStone products are comprised of 50- to 100-percent recycled paper, natural pigments and our own non-petroleum based resins. Because it has been certified by the Smartwood program of the Rainforest Alliance to FSC standards, PaperStone plays a lead role in enabling a building project to acquire LEED points toward certification.

Warm to the touch – While it is nearly as hard as metal or stone, PaperStone is warmer to the touch.

**Made in the U.S.A.** – Manufactured at the Paneltech Manufacturing Plant in Hoquiam, Washington, on the West Coast of the U.S., all raw materials used to create PaperStone are also from the U.S.

**Easy to work with** – PaperStone's unique properties make it easy to fabricate and install by professionals or hobbyists, using either stone cutting tools or traditional woodworking tools with high quality carbide-tipped blades. Creative edge details can be achieved with traditional tooling.

**Cost-competitive** – PaperStone's pricing is comparable to quality granite, solid surface or engineered quartz materials. However, the ease of its fabrication and finish often saves on installation cost, reducing the project's overall expense.

**Available in large sizes** – PaperStone is available in a variety of sizes up to 5-ft. by 12-ft. panels, which makes it possible to have fewer or even no seams in many applications. In addition, it is available in a variety of thicknesses to suit particular needs.

**Suitable for many uses** – The PaperStone products can be used in both horizontal and vertical building applications, in commercial or home use, for building elements and other products.

**Certified food safe** – Many PaperStone products are certified food safe for direct food contact by the National Sanitary Foundation. In addition, with proper cleaning, PaperStone does not promote growth of bacteria, mold or mildew.

**Fire-rated** – Most PaperStone products are also a good choice for applications requiring high fire resistance. In a fire Paperstone retains stability for an extended time and has earned a UL Class A rating for both flame spread and smoke developed indices in accordance with ASTM E84 testing. It will not melt, liquefy or explode.

### What are the PaperStone Products?

The PaperStone family of products includes:

PaperStone Solid Color Panels – monolithic slabs that are the same color throughout

**Designer Series Panels** – light-colored surface slabs with light and dark layers on edges

**CoverPly** – hardwood plywood with PaperStone surfaces

**DiaDeck and DiaScreen** – non-skid diamond pattern pressed into Solid Color Panels and Designer Series Panels

# Where is PaperStone made?

PaperStone is manufactured at Paneltech in Hoquiam, Washington, located on the Pacific Coast at the southwest corner of the Olympic Peninsula. In the shadow of the Olympic Mountains and near the Quinault National Rain Forest, Paneltech is about a two-hour drive southwest of Seattle.

# **How is PaperStone made?**

To make PaperStone, recycled paper is saturated with our proprietary phenolic resins and selected natural pigments. After trimming to length, resin-saturated sheets are stacked together and moved into a press where heat and pressure fuse them together. The number of paper sheets pressed determines the final panel thickness.

# What makes PaperStone so Earth Friendly?

The vast majority of PaperStone products are made from 50- to 100-percent recycled paper fiber and our proprietary petroleum-free resins. Most PaperStone products are certified at Forest Stewardship

Council standards by the Smartwood program of the Rainforest Alliance. This allows builders to receive points in the nationally recognized LEED green building program, encouraging green building practices.

Recycled paper is more difficult and more expensive to work with than virgin fiber. However, because of our commitment to the environment, we develop and use the greenest, most natural and Earthfriendly manufacturing processes that are economically possible. In the few products that do not use recycled paper, FSC-certified virgin fibers are used.

Typically, phenol, the primary raw material for phenolic resins, is derived from crude oil. However, the phenolic resin developed at Paneltech is free of petroleum. Among paper composite manufacturers, Paneltech is the only one that designs and makes its own resin; thus, it can select its own raw materials types and sources. Like using recycled paper, using non-petroleum phenol is also more challenging, but we believe worth the effort.

Mastering the use of recycled paper and resin manufacturing is made possible by the expertise in Paneltech's on-site laboratory, which includes a paper engineer whose career was spent in a paper mill, and a PhD chemist whose specialty is phenolic resin chemistry.

# How does PaperStone compare to solid surface materials?

PaperStone products are comparable in hardness and reparability to other brands. PaperStone is stiffer than many brands and does not need additional support underneath a surface in many cases. Because of that strength, creative cantilevered designs with up to 18 inches of overhang can be achieved.

# How does PaperStone compare to stone and engineered quartz surface materials?

PaperStone is not as hard, but also not as brittle, as stone or engineered quartz brands which can sometimes crack. Maintenance and sealing requirements for some stone products are more complex and critical than for PaperStone.

# How does PaperStone get from factory to installation?

PaperStone is manufactured into rectangular panels at the Paneltech Manufacturing Plant in various standard unfinished sizes. Rough panels are shipped, securely packaged, on a rigid pallet that is appropriate for the size of the order. The shipment is delivered to the site of fabrication, either a shop or a jobsite where the panels are cut, routered and sanded in preparation for installation. If finish is desired, either the fabricator or installer may apply it.

# Who can fabricate and install PaperStone?

PaperStone is commonly cut and shaped before installation using woodworking tools from sophisticated automated machinery at large surface fabrication shops, to common household woodworking tools such as a skill saw, router and orbital sander, performed by cabinet shops and handy men and women.

#### **How should PaperStone be stored?**

PaperStone should be stored inside, protected from moisture and laid flat on the pallet until installation.

### How are PaperStone joints seamed and are they visible?

PaperStone is seamed using woodworker type biscuit joints, mechanical t type joiners, or simply butting pieces up and securing them to the base cabinets with screws or glue. Joint gaps can be filled with color-matching caulk.

PaperStone has a directional "grain" and, although it is much less dramatic than wood, any seam will be apparent. However, because it can be ordered in up to 5 ft.- by 12 ft. panels, it's possible to need fewer, if any, seams in many applications.

Because PaperStone is comprised of layers, it is important to align the tops by shimming the bottom rather than sanding the tops to match height. If sanding is used, it is likely the seam will become more apparent than otherwise.

# How does PaperStone perform outside?

Structurally, PaperStone is extremely durable and water resistant. It can be used for extreme ground contact conditions such as a garden box or retaining wall. In a test garden application, there has been no apparent degradation since installation in 2010.

Color fading results outdoors are mixed. Left alone in direct sun, Gunmetal and Cabernet colors retain their original color fairly well. However, other original PaperStone colors can fade significantly in the sunlight. The new designer colors all resist fading better. PaperStone continues to work on various systems to improve UV resistance.

# Is PaperStone repairable from scratches and dings?

PaperStone can easily be sanded and refinished following the instructions offered in this website.

# Does PaperStone require maintenance to retain its beauty?

PaperStone is offered in several finishes. The standard finish is a matte, flat-textured surface that should be coated for optimal appearance and protection. Occasionally a light wax coating is needed to freshen up the finish. Our finishing and maintenance guidelines are available on this website.

On some products, PaperStone offers the option of an enhanced finish that is maintenance free.

# Does PaperStone show impurities from recycled paper?

Impurities are present in all recycled paper. Generally, these impurities residing in the paper covered by surface resin become more apparent when the surface is sanded. Similar to a wood grain or stone, the variations caused by impurities are considered part of the character of PaperStone.

In the Designer Collection of colors, impurities are rarely seen. The exception is tin the Cabernet and Slate colors, these impurities are more apparent when sanded because of the way these colors are manufactured.

# Why doesn't PaperStone come in lighter colors?

Lighter shade PaperStone Designer Series colors are available using a clear melamine resin instead of our petroleum-free resin. The phenolic resin made by Paneltech has a dark brown color because of the use of non-petroleum phenol, making it suitable for darker colors.

# Why do the Designer Series alternate colors on the edges?

The light-colored melamine sheets are interleaved with darker phenolic sheets, causing an attractive contrast on the edges. This is necessary because melamine, being more brittle, would be breakable and hard on fabrication tools in a 100-percent paper/melamine panel.

# Do PaperStone colors change over time?

Solid Panel Colors: Slate, Chocolate and Cabernet, as well as Designer Colors: Graphite, Pewter and Sand, do not change over time indoors.

### Do PaperStone colors match between manufacturing lots?

We try to color match every lot but some variation is likely.